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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,387	08/09/2000	Naoki Aihara	FUJH 17.615	5173

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10/22/2003

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EXAMINER

SEFCHECK, GREGORY B

ART UNIT PAPER NUMBER

2662

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DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/634,387

Applicant(s)

AIHARA ET AL.

Examiner

Gregory B Sefcheck

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the following as described in the specification:

In Fig. 3-6, it is not shown how the APS indicator, Tag-B, and/or O-ICID-A are separated from the inputs to the various functional blocks to feed the Cell Copy Table, VPI/VCI Conversion Table, APS ID set table and/or ACT bit set table.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "2-i" is not shown. It is described in the specification on pg. 7, line 5 as the line interface portion where the protection channel is terminated. Fig. 2 shows "2-n" as terminating the protection channel.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "25" has been used to designate both "APS Identifier Set Table" and "ACT Bit Set Table" in Fig. 6. Reference character "26" has also been used to designate both "APS Identifier Set Table" and "ACT Bit Set Table". (Pg. 11, lines 12-17).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Specification***

4. The abstract of the disclosure is objected to because:

On line 6, the description of the physical layer APS as "basically adopted with a simplified means" uses the legal phraseology "means" incorrectly and does not state the invention clearly or concisely.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology

Art Unit: 2662

often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are:

- The ACT bit is defined as being an order from a controller to switch over the connection (pg. 7, line 1) as well as an indication of a cell being "in working condition" (pg. 8, lines 3-4). How it is derived from values within the cell header (Tag-B, O-ICID-A) is also unclear.
- "Internal" line interface portion 2-i (pg. 7, line 9) is not adequately explained? It is stated as the termination for the protection channel, while Fig. 2 shows line

Art Unit: 2662

interface portion 2-n as terminating the protection channel. Further detail/definition for the terms “internal” and “external” as they apply to the line and line interface would be helpful.

- How exactly is it associated with the ACT bit (pg. 7, line 8-9)?
- How exactly are Tag-B and O-ICID-A obtained and used as “reference keys” in Fig. 3-6 (specification, pg. 9, line 6)?
  - How are Tag-B and O-ICID-A related to O-VPI/VCI and the VPI/VCI conversion table (pg. 9, line 12-18)?
  - How are these values (Tag-B, O-ICID-A, O-VPI/VCI, VPI/VCI)....
    - used in the cell copy table 30 (Fig. 3)?
    - derived from the Alarm Cell Inserted 20 (Fig. 4)?,
    - used throughout the operation of Fig. 5 and 6? (Pg. 8, line 12 and continuing throughout specification)
- It is not clear how the VPI/VCI conversion table, ACT bit set table, APS ID set table or Cell Copy table use their respective inputs (O-ICID-A, APS, Tag-B, etc) to used to obtained a their output values.
- The description of Figs. 5-7 on pgs. 10-12 contains substantial grammatical errors, as well as confusing and incomplete sentences/descriptions of embodiments. The use of derived variables such as O-ICID-A, Tag-B, APS group, ACT bit and how they are used in operating Header Modification Portions 24 and 27, APS identifier set table, ICID conversion table, ACT bit set table, etc. is unclear.

Art Unit: 2662

- The above items only identify examples of unclear and inexact areas of the specification. In general, the specification was very difficult to follow and does not enable one skilled in the art to make and/or use the invention.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- In regards to Claim 1, 4 and 7,

The recovery and use of the O-ICID-A value in obtaining an ACT bit value through the use of the ACT bit set table (Fig. 5 and 6) is not adequately explained in the specification (pg. 8-9) as needed to complete the steps/means for indicating if a cell is object for a switchover (claims 1 and 4) and of indicating whether cells belong to a working connection (claims 1, 4 and 7).

Art Unit: 2662

It is also unclear how the Cell Copy Table utilizes the Tag-B and O-ICID-A portions of the cell header when duplicating cells and transmitting the cells simultaneously to working and protection channels (claims 1, 4, and 7).

These items require clarification if the step/means for selecting only received cells included in a working state connection (claims 1, 4, and 7) is to be done properly.

- In regards to Claim 2, 3, 5, 6 and 8,

The description of the ACT bit derivation/extraction as described in the specification (pg. 7-8, 10-12) and as shown above in regards to claims 1, 4, and 7, is not adequate for one skilled in the art to perform the steps/means below:

- discarding cells indicated as not in a working state (claims 2, 5, and 8)
- providing an indication of whether cells are object to switchover in the cell (claims 3 and 6)

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.



Art Unit: 2662

5. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Sekine et al. (US006466576B2), hereafter Sekine.

- In regards to Claims 1, 4 and 7,

Sekine discloses a method and equipment for switching between a working and protection channel in an ATM network.

Referring to Fig. 1 and 6, Sekine shows a demultiplexer device 18 producing duplicate cells (claim 1, 4 and 7) for a spare system (protection channel) from the cells of the presently operable system (working connection).

Both cells are then transmitted through the DMUX 22 portion (claim 1, 4, and 7) of the demultiplexer device 18 to operable (working) and standby (protection) channels (Fig. 1 and 6; Col. 10/11, lines 62-31).

Furthermore, the SC unit 19 utilizes an APT table 20 to indicate whether the connection is object to a switchover (Claims 1 and 4) by reading the value of the TAG-B and O-ICID-A from the cell received on the WL and copying them to the copied cell on the PL (Col. 11, lines 8-21 and 55-65).

Referring to Fig. 1 and 2, Sekine also shows a line processing unit (line interface) that receives a transmitted cell and monitors the state of the connection (claims 1 and 4) on which the cell was received (Col. 7, lines 57-67).

ACT/SBY information (ACT bit) for the cells is accepted by the reducing units 26a and 26b from the APS managing unit 40 (table). This information is placed in the header of the cells to indicate whether a cell belongs to the operable (ACT; working) or

Art Unit: 2662

standby (SBY; protection) system. The IVC unit 14 checks for ACT information (ACT bit) in the received cell header. If ACT information is stored, the cell is determined to be a cell of the operable (working) system (claim 7; Col. 8, lines 53-60).

Received cells are then selected from the line currently in the working state (claims 1, 4, and 7; Col. 7-9; Fig. 2).

- In regards to Claims 2, and 5,

Sekine discloses a method and equipment for switching between a working and protection channel in an ATM network that covers all limitations of the parent claims.

Sekine shows that received cells which standby (not working) information has been stored are discarded (Abstract; Claims 2 and 5).

- In regards to Claims 3 and 6,

Sekine discloses a method and equipment for switching between a working and protection channel in an ATM network that covers all limitations of the parent claims.

Sekine discloses the SC unit 19 and APT table 20 of demultiplexer device 18 (at the unit of a connection) indicate in the cell whether the connection is object to a switchover (Claims 3 and 6) by reading the value of the TAG-B and O-ICID-A from the cell received on the WL and copying them to the copied cell on the PL (Col. 11, lines 8-21; 55-65).

- In regards to Claim 8,

Sekine discloses a method and equipment for switching between a working and protection channel in an ATM network that covers all limitations of the parent claim.

Sekine shows a received cell determined to belong to the standby (non working) system is discarded (invalidated) by the IVC unit 14 (Fig. 2; Col. 8, lines 60-67).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Tada (US006487169B1) discloses a cell switching module with unit cell switching function
- Smith et al. (US006359858B1) discloses switching redundancy control
- Ahmad et al. (US006359857B1) discloses protection switching trigger generation
- Takechi et al. (US005513191A) discloses an asynchronous transfer mode (ATM) cell error processing system
- Kakuma et al. (US005488606A) discloses a procedure for switching-over systems
- Isono et al. (US 5,072,440) discloses a self-routing switching system having dual self-routing switch module network structure

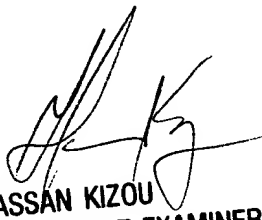
Art Unit: 2662

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B Sefcheck whose telephone number is 703-305-0633. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

GBS  
9-30-2003



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